

REMARKS

Response to Arguments

The Examiner indicates that the arguments of Applicant submitted December 1, 2003 have been fully considered and deemed not persuasive. Applicant notes that further arguments were submitted in the case, most recently on 09 June 2004. Since the Office Action appears to contemplate some of the arguments, and the newly submitted claims, it is assumed that the date recitation is an artifact of previous documents and is in error.

The Examiner takes the position in the Response to Arguments that Hershey's system is a quasi-static non-propagating field because it does not send propagating waves to a far field destination. As Applicant clearly stated in the June submission, this is a misreading of the disclosure and represents only one aspect of Applicant's field. Of greater importance is the "non-propagating" aspect of the field. Further, by focusing only on one aspect of the definition of quasi-static, and not the others set forth in the specification, the Examiner bends the bounds of language improperly in order to encompass a much different conceptual structure (*Hershey*).

The Examiner posits that without propagation there can be no movement of information. This is definitely not the case. The field itself does not propagate in Applicant's invention, but rather it supports the information carried by the frequency waves within the field. The waves within the field "propagate" to a degree to carry the information, but the field itself does not.

The Examiner indicates that Hershey discloses the limitation on grid size. This is hardly true. Hershey describes a system which nominally includes a grid which falls within the literal limitation of the relationship between the frequency/wavelength of the waves and the conductive grid of the building. Hershey does nothing whatsoever to disclose the limitation. Hershey does not teach anything relevant to the limitation or show any reason why such is relevant, it just happens to use a frequency so low that no conceivable grid size exceeds or approaches the wavelength.

The Examiner argues that Hershey is a communications system, despite its extremely slow operation. While this may be technically accurate it is not a

communication system suitable for use with wireless networks, as required by the claims at issue. The speed of operation is very highly relevant to the presented claims.

The Examiner states that evanescent waves are not and can never be relevant to the patentability of the claims at hand. Applicant disagrees completely. It is acknowledged that Applicant, in the original disclosure, did not utilize the term "evanescent waves". However, the phenomena disclosed and described in the disclosure are and always have been evanescent waves, they were simply not recognized as such at the time of first writing. It is not new matter or irrelevant teaching to use new words to describe what has been originally disclosed. Explanations of the phenomena are relevant, regardless of the particular words selected.

As explained in prior responses (rejected by the Examiner) it is now understood that the principal effect of Applicant's system is the creation of evanescent waves, a phenomenon in which the Examiner apparently does not believe. Applicant has performed an Internet search on this phenomenon and has found over 1400 hits on this issue (there were fewer than 5 in 2000). The phenomenon is now completely accepted and much better understood in the scientific community. It can be safely stated that Hershey does not use or produce anything remotely resembling evanescent waves. The operation of Applicant's system is entirely different from that of Hershey. It is recognized that Applicant is hamstrung by the original wording of the specification and the terms used therein, but does not believe that improved understanding of the described phenomena should be rejected out of hand.

Applicant also submits herewith, for aid in understanding of the invention, a CD including demonstrations of the efficacy of the present invention. In this set of three demonstrations, the inventor and co-workers show the system in use in a building, demonstrating the use for audio and video signals and the exciter utilized to create the field.

Claim Rejections – 35 USC § 102

The Examiner, has rejected claims 14, 15 and 17) on the basis that they are perceived to be anticipated by *Hershey* (US 6,329,928). Applicant continues to vigorously contest this position.

The Examiner previously took the position that Applicant had not claimed a communications system at all, and much less one which could operate in real time. Accordingly, Applicant amended claim 14 to specifically include "communications" and more specifically to designate the type of communications for which the system is suited. It is submitted that such limitations in the preamble, which are fully disclosed in and consistent with the specification, completely distinguish the claimed subject matter from anything taught or suggested by *Hershey*. The amendment to claim 15 merely matches claim 14 by adding "communications" to the preamble. The Examiner has ignored this limitation and this, as well as the other reasons previously stated, clearly distinguish the present claims from any teaching of *Hershey*.

The Examiner appears to include a rejection of claim 17 in this paragraph. However, there is only an incomplete sentence, and no basis for rejection stated in the Office Action. Accordingly, a response is not possible.

It is asserted that the present claims dispel any possible anticipation by *Hershey* and overcome the rejection stated under 35 USC §102.

Claim Rejections – 35 USC § 103

The Examiner rejects claims 16, 18 and 19 based upon teachings of *Hershey* and extrapolations of his perception of the practitioner of ordinary skill in the art. Applicant vigorously asserts that the interpretation and perception are clearly erroneous and that the rejections cannot stand.

The Examiner takes the position that *Hershey* teaches the use of radio frequencies in its system. This is an absurd interpretation of the teaching of *Hershey* at column 6, lines 1-4. In that language *Hershey* contemplates using radio as a complete alternative to the system described. The language clearly contemplates using ordinary over-the-air radio communications within the building to replace the inductive system otherwise described. *Hershey* teaches nothing whatsoever about using radio frequencies, but rather teaches using ordinary radio communications, independent of the conductive framework. This is entirely contrary to the Examiner's stated position that "the suggestion lies in *Hershey* for the use of radio frequencies in such a system".

In addition, no support is provided for the supposition stated that it would be obvious to one skilled in the art to use the "higher frequencies, with properties such as less susceptibility to interference".

The stated interpretation of the Examiner that Hershey column 4, lines 17-30 teaches the relationship between the frequency and the grid opening size is also far from clear, at best. That language refers to a flux window applicable to a perimeter and deals with current induced in the structure. The equations stated in the cited interval do not even include any factors relating to grid opening size, or for that matter, to frequency or wavelength. Instead, these deal only with perimeter and current. These are concepts alien to and irrelevant to Applicant's claimed invention.

The suppositions stated in support of the Examiner's rejection of the claims under §103 are faulty and unsupported in the art. Accordingly, the rejections are improper and must be withdrawn.

Applicant's invention is now stated in terms which clearly distinguish it from any prior art teachings. The limitations on grid size and the relationship between such and the wavelength of signals suitable for real time communication are clearly stated. No prior art, or combination of such, teaches or implies anything of this nature. Accordingly, it is asserted that neither *Hershey* nor any combination of references raised by the Examiner in any way makes obvious the teachings of Applicant, as stated in the revised claims.

Conclusion

Having responded to all of the paragraphs of the Office Action, and having amended the claims accordingly, Applicant respectfully submits that the Application is now in condition for allowance. Applicant therefore respectfully requests that a Notice of Allowance be forthcoming at the Examiner's earliest opportunity. Should the Examiner have any questions or comments with regard to this amendment, a telephonic conference at the number set forth below is respectfully requested.

Serial No.: 09/340218
Electromagnetic Field Communications System, etc.
Chadwick, George G.

Ex. West, Lewis G.
Art Unit: 2682
Att. Ref. 60607.300101

Respectfully submitted,



Date: 24 November 2004

Michael J. Hughes – Reg. No 29,077

IPLO[®] Intellectual Property Law Offices
1901 South Bascom Avenue, Suite 660
Campbell, California 95008
Telephone: (408) 558-9950
Direct Tel: (408)-558-7890
Facsimile: (408) 558-9960
Email michaelh@iplo.com

Customer No. 32112

CERTIFICATE OF MAILING (37 CFR 1.8(a))

I hereby certify that this paper (along with any referred to as being attached or enclosed) is being deposited on April 9, 2004 with the U.S. Postal Service as first class mail in an envelope addressed to: MS Non Fee Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date: 24 November 2004



Patricia Beilmann